

Notice of Allowability

Application No.

09/997,731

Examiner

Chat C. Do

Applicant(s)

MORENO, PEDRO J.

Art Unit

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/03/2006.
2. ☒ The allowed claim(s) is/are 1-8, 10-19, 21-29 and 31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DÉPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>attached herein</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mary L. Wakimura on 03/14/2006.

The application has been amended claims 29-30 as follows:

29. (Currently Amended) A computer program product encoded in a tangible computer readable medium having computer program code for matching sequences of signals from an information stream comprising: computer program code for extracting a stream of samples from a subject information stream, each of the extracted samples comprising a portion of the information stream; computer program code for computing, for each of the samples, a vector quantity indicative of the data in the sample; computer program code for correlating the vectors to generate a signature indicative of the stream of samples, computer program code for comparing the generated signatures to signatures generated from a match stream of samples using a distance metric to generate distance values, computer program code for generating, as a result of the comparing, a distance matrix containing entries of the distance values and indicative of signatures generated from similar samples, computer program code for traversing the distance matrix to determine if a similar distance value sequence is found; computer program code for querying, when a similar distance value sequence is found in the distance matrix, a library of previously

found distance value sequences, computer program code for storing the distance value sequence in the library if a match is not found as a result of the querying; computer program code for updating, if a match is found as a result of the querying, a timestamp corresponding to the matching distance value sequence in the library; computer program code for traversing the distance value sequences in the library; computer program code for examining each of the timestamps of the distance value sequences; and computer program code for purging, when the timestamp is beyond a predetermined threshold, the distance value sequence corresponding to the timestamp.

30. (Cancelled)

2. Claims 1-8, 10-19, 21-29, and 31 are allowed.
3. Claims 9, 20, and 30 are cancelled.
4. The following is an examiner's statement of reasons for allowance:

The prior art of records fails to disclose or render an obviousness of a method of matching sequences of signals from an information stream comprising: computing vector quantity indicated of input sample; correlating and comparing the generated signatures to matched signatures using a distance metric; generating a distance matrix containing entries of the distance values and indicative of signatures generated from similar samples; querying a library of previously found distance; storing if a match is found otherwise updating as seen in independent claims 1, 21-22, 29, and 31.

The closest found prior art is Johnson et al. ("A method for direct audio search with applications to indexing and retrieval"). Johnson et al. also disclose a method of matching sequences of signals from an information stream. However, Johnson et al. fail to disclose a steps along with others of correlating and comparing the generated signatures to matched signatures using a distance metric; generating a distance matrix containing entries of the distance values and indicative of signatures generated from similar samples as seen above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (571) 272-3721. The examiner can normally be reached on 7:00AM to 5:00PM M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C Do
Examiner
Art Unit 2193

March 14, 2006

Chat C Do
KAYLA CHEN
SUPERVISOR
TECHNOLOGY CENTER 2100
EXAMINER